ASSESSMENT OF THE PERCEIVED EFFECT OF DIET IN THE MANAGEMENT OF DIABETIC PATIENTS IN KWARA STATE UNIVERSITY TEACHING HOSPITAL, ILORIN

BY

OKEDARA GRACE OLUWASEUN

AT

THOMAS ADEWUMI UNIVERSITY OKO-IRESE, KWARA STATE

AUGUST, 2025.

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(20/05NSS019)

AT

AN UNDERGRADUATE PROJECT SUBMITTED TO DEPARTMENT OF NURSING, FACULTY OF NURSING SCIENCE THOMAS ADEWUMI UNIVERSITY OKO-IRESE, KWARA STATE, NIGERIA.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE BACHELOR OF NURSING SCIENCE (HONOURS) DEGREE IN NURSING SCIENCE

AUGUST, 2025.

DECLARATION PAGE

This is to declare that this research project titled , **''Assessment of the perceived effect of diet in the management of diabetic patients in kwara state university teaching hospital Ilorin''** was carried out by **Okedara Grace Oluwaseun** is solely the result of my work except where acknowledged as being derived from other person(s) or resources.

Matric Number: 20/05NSS019

In the faculty of Nursing Science, Thomas Adewumi University, Oko-Irese, Kwara State

Signature:  **Date: 7/8/2025.**

CERTIFICATION

This is to certify that this research project by **Okedara Grace Oluwaseun (20/05NSS019)** was supervised by Mrs. Omotosho Dorcas O. and submitted to the Department of Nursing Science, Faculty of Nursing Science, Thomas Adewumi University, Oko-Irese, Kwara State, Nigeria.

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ABSTRACT

Diabetes mellitus is a chronic metabolic disorder requiring comprehensive management strategies, including dietary modifications. Patient's perception of dietary management play a crucial role in adherence and effectiveness. This study explores the perceived effect of diet in the management of diabetic patients in Kwara State Teaching Hospital Ilorin. This study aimed to assess the perceived effect of diet on diabetes management among patients. A convenience sampling technique was used to select 107 respondents. A self-structured question was distributed to all 107 respondents, with 94.5% participation. 100 questionnaires were returned for data collation and analysis. The data were analyzed using both descriptive and inferential statistics. Findings from the study revealed that 86% of respondents agreed that following a proper diet has helped improved their blood sugar levels while 14% disagreed. Also cost of food has been ranked high has one of the factors that influences diabetic patients ability to follow a diabetic' friendly diet as 74% agreed and 26% disagreed. In view of this findings recommendations include collaborating with dietitians and healthcare workers to develop patient-centered dietary plans can help address misconceptions and provide patients with tailored advice that enhances adherence to diabetes management, administrators should also work with policymakers and healthcare providers to improve access to affordable, healthy food options, particularly for patients with limited financial resources and policies that help promote culturally appropriate dietary interventions that will help overcome cultural barriers to dietary adherence and ensure that dietary advice resonates with patients from diverse backgrounds should be put in place.

Keywords: diabetes management, diet, dietary adherence, patient perception, barriers.

DEDICATION

This project is wholeheartedly and especially dedicated to the most-high God, who in His infinite mercy has helped me thus far even against all odds.

This work is also dedicated to my parents and siblings for their support and encouragement which has kept me going even in difficult times. Thank you for always believing in me.

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CHAPTER ONE

1.0 Introduction

This chapter aims to discuss the details of the research topic, background and research purposes. It is presented by stating the background, objectives, questions, hypothesis, significance, scope and statement of the problem of this research.

1.1 Background of the Study

According to Suresh (2019) diabetes, also known as diabetes mellitus, is a metabolic disorder in which the individual has high blood glucose levels due to inadequate insulin production, improper response of body cells to insulin, or both. The main symptoms include frequent urination (polyuria), increased thirst (polydipsia), and heightened hunger (polyphagia).

Diabetes mellitus (DM) was first recognized as a disease around 30 centuries ago by the ancient Egyptians and Indians (International Journal of Health Science, 2017).

According to Marina (2023), Diabetes Mellitus is of three major types, based on etiology and clinical signs and symptoms. These are Diabetes Mellitus type 1 (T1DM), Diabetes mellitus type 2 (T2DM), and Gestational Diabetes mellitus (GDM). Type 1, also know as insulin-dependent diabetes, juvenile diabetes, or early-onset diabetes is characterized by when there is absolute insulin deficiency due to the destruction of β cells in the pancreas by a cellular mediated autoimmune process. People with type 1 diabetes usually develop it before their 40th year, often in early adulthood or teenage years. Type 1 diabetes is not has common as type 2 diabetes, as it accounts for only 10% of all diabetic cases.

Type 2 diabetes, is characterized by insulin resistance (the cells in the body do not react to insulin) and relative insulin deficiency (body does not produce enough insulin for proper function). Type 2 diabetes accounts for approximately 90% of all diabetes cases worldwide. Type 2 diabetes is typically a progressive disease as it usually gets worse gradually. The onset of type 2 diabetes is most common in people aged 45–64. It usually appears after the age of 45 but can occur at any age.

Gestational Diabetes Mellitus is any degree of glucose intolerance that is recognized during pregnancy. It is a temporary condition that occurs in pregnancy and carries long-term risk the woman later developing type 2 diabetes. The diagnosis of gestational diabetes is made during pregnancy. The majority of gestational diabetes patients can control their diabetes with exercise and diet. Between 10 to 20 percent of them will need to take some kind of blood-glucose-controlling medications. Undiagnosed or uncontrolled gestational diabetes can raise the risk of complications during childbirth (Suresh 2019).

Diabetes is a major public health concern worldwide, with an estimated 463 million adults living with diabetes in 2019, and this number is expected to rise to 700 million by 2045 (International Diabetes Federation, 2019).

According to the International Diabetes Federation's IDF Diabetes Atlas (2024), around 24.6 million adults (ages 20–79) had diabetes in sub-Saharan Africa in 2024, with projections reaching nearly 60 million by 2050 (IDF, 2024).

In Nigeria, diabetes affects approximately 5.5 million people, with a projected increase to 8.7 million by 2045 (International Diabetes Federation, 2020).

A large community-based cross-sectional study conducted across five Nigerian states, including Kwara, assessed the burden of diabetes using HbA1c screening among adults aged 18 years and above. The findings revealed that the prevalence of

undiagnosed diabetes in Kwara State was 14.2%, indicating a high burden of hidden cases in the population. The overall diabetes prevalence (both diagnosed and undiagnosed) across the five surveyed states was 10.7% (Oputa et al., 2023).

Management of diabetes is crucial to prevent complications such as cardiovascular disease, kidney failure, and blindness.

Effective management of diabetes requires a multifaceted approach, including medication, physical activity, and dietary modifications (American Diabetes Association, 2020).

One of the key components of diabetes management is diet. Diet plays a crucial role in controlling blood glucose levels and preventing complications associated with diabetes. The American Diabetes Association (ADA) recommends a balanced diet that includes a variety of foods such as fruits, vegetables, whole grains, lean proteins, and healthy fats. It also emphasizes the importance of portion control and monitoring carbohydrate intake to manage blood glucose levels effectively (ADA, 2020). Additionally, the ADA suggests limiting the intake of foods high in sugar, saturated fats, and sodium.

Diet plays a crucial role in diabetes management, as it directly impacts blood glucose levels and overall health outcomes (Franz *et al.*, 2015). A well-planned diet can help: regulate blood glucose levels, improve insulin sensitivity, reduce the risk of complications (e.g., cardiovascular disease, nephropathy) and promote weight management.

Various dietary approaches have been shown to be effective in diabetes management, including: Mediterranean diet, Low-carbohydrate diet, Low-fat diet and Plant-based diet.

Despite the importance of dietary management, adherence to dietary recommendations remains a significant challenge for many diabetic patients (Kruger *et al.,* 2014). Factors influencing dietary adherence include: Cultural and socioeconomic factors, food availability and accessibility, patient education and awareness, healthcare provider-patient communication.

Dietary practices are a major contributor to the increasing prevalence of diabetes in developing nations and are fundamental to diabetes management (IDF, 2021).

Few studies have investigated the perceived effect of diet in the management of diabetic patients. A study by Franz *et al.* (2019) found that a low-carbohydrate diet led to significant improvements in glycemic control and weight loss in individuals with type 2 diabetes. A systematic review by Ajala *et al.* (2019) concluded that low-carbohydrate diets were effective in improving glycemic control and reducing medication usage in individuals with type 2 diabetes. The review also highlighted the importance of individualizing dietary recommendations based on the patient's preferences and cultural background.

Despite the importance of diet in diabetes management, there is limited research on the perceived effect of diet among diabetic patients. Understanding how diabetic patients perceive the role of diet in managing their condition is essential for developing effective interventions and improving patient outcomes.

This study aims to fill the gap in the literature by exploring the perceived effect of diet in the management of diabetic patients and identifying factors that influence dietary adherence. By gaining insights into the challenges faced by diabetic patients in following dietary recommendations, healthcare providers can develop targeted

interventions to improve patient outcomes and reduce the burden of diabetes-related complications.

1.2 Statement of Problem

Diabetes mellitus remains a significant public health challenge globally and nationally, with the number of affected individuals rising rapidly. In Nigeria, approximately 5.5 million people are currently living with diabetes, and this number is projected to reach 8.7 million by 2045 (International Diabetes Federation, 2020). Sub-Saharan Africa alone accounted for 24.6 million adult cases in 2024, with projections rising to nearly 60 million by 2050 (IDF, 2024). In Kwara State, a recent study found a 14.2% prevalence of undiagnosed diabetes, reflecting a concerning burden of silent cases (Oputa et al., 2023).

Despite increased awareness of diabetes and its complications many patients continue to struggle with self-management, particularly in the area of dietary control. As a nursing student who has experienced multiple clinical postings, the researcher has observed that diabetic patients often express confusion and uncertainty about dietary recommendations given by healthcare providers. This uncertainty contributes to inconsistent dietary practices, which may affect disease control and quality of life.

Understanding how patients perceive the role of diet in managing diabetes is essential for developing targeted nutritional education and improving adherence to dietary plans. This study, therefore, seeks to explore the perceived effect of diet in the management of diabetes among patients attending Kwara State University Teaching Hospital, with the goal of identifying gaps in knowledge, attitude, and dietary behavior.

1.3 Broad Objective of the Study

The broad objective of the study is to assess the perceived effect of diet on the management of diabetic patients at Kwara State University Teaching Hospital, Ilorin.

1.4 Specific Objectives of the Study

Objectives of the study is to;

1. Assess the knowledge of diabetic patients on the role of diet in managing diabetes in Kwara State University Teaching Hospital;
2. Examine the perceived effect of diet on the management of diabetes among patients in Kwara State University Teaching Hospital;
3. Identify the factors influencing diabetic patients' dietary choices in Kwara State University Teaching Hospital;
4. Explore strategies to enhance the adoption of dietary management among diabetic patients in Kwara State University Teaching Hospital.

1.5 Significance of the Study

The research results will help correct misconceptions about the dietary options for diabetic patients. This research study aims to empower the public to make informed dietary choices to manage diabetes. It aims to sensitize the government to develop effective public health programs to promote healthy eating habits. This study identifies the dietary recommendations that can be effective in improving the disease and the health of people with diabetes. It aims to sensitize nurses on the need for development of personalized dietary plans for diabetic patients. It aims to enhance the researcher's understanding of the complex relationships between diet, culture, and diabetes management.

1.6 Research Questions.

1. What is the level of knowledge of diabetic patients regarding diet as a form of diabetes management in Kwara State University Teaching Hospital?

2. What is the the perceived effects of dietary management on diabetes control among patients in Kwara State University Teaching Hospital?

3. What are the factors influence the dietary choices of diabetic patients in Kwara State University Teaching Hospital?

4. What strategies can be implemented to improve the adoption of diet management among diabetic patients in Kwara State University Teaching Hospital?

1.7 Research Hypothesis

$H_{01:}$ There is no significant relationship between the perceived effect of diet in management of diabetes and the knowledge of diabetic patients in Kwara State University Teaching Hospital.

$H_{02:}$ There is no significant relationship between the perceived effect of diet in management of diabetes and the factors influencing dietary choices of diabetic patients in Kwara State University Teaching Hospital.

1.8 Scope of the Study/ Delimitation

This study focus on the perceived effect of diet in the management of diabetic patient in Kwara State University Teaching Hospital, Ilorin Kwara state.

The study is delimited to all diabetic patients attending Kwara State University Teaching Hospital, Ilorin.

1.9 Operational Definition of Terms

Diet: the sum total of food and beverages consumed by a diabetic patient over a specific period of time.

Diabetes: a chronic disease condition that is characterized by high level of glucose in the blood and urine

Effects: outcome or result of dietary intervention in the management of diabetes mellitus

Patients: sick people that are being treated for diabetes mellitus

Management: a process of controlling the progression of diabetes mellitus.

CHAPTER TWO

REVIEW OF LITERATURE

2.0 Introduction

WHO (2024), defined diabetes mellitus as a chronic, metabolic disorder characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys and nerves.

Diabetes is a metabolic condition that is characterized by chronic hyperglycemia and results from an interplay of genetic and environmental factors [Ojo, Weldon *et al*. 2019]. The literature review in this chapter provides a comprehensive overview of the perceived effect of diet in the management of diabetic patients. The purpose of this chapter is to examine the existing research on the role of diet in diabetes management

and to identify gaps in the current literature. The scope of this chapter includes a discussion of the conceptual and theoretical frameworks related to diabetes management, as well as an exploration of dietary components, patterns, factors influencing dietary adherence, patient perceptions and experiences, effectiveness of dietary interventions, and areas requiring further research.

2.1 Conceptual review

2.1.1 Classification of diabetes mellitus

The present classification system is helpful in determining the necessary therapy and is based on both the pathophysiology and the aetiology of the condition. Type 1 diabetes mellitus (T1DM), type 2 diabetes mellitus (T2DM), gestational diabetes mellitus (GDM), and diabetes induced or related with certain illnesses, pathologies, or syndromes are the four primary forms or categories into which diabetes can be classified (Banday *et al.,* 2020).

2.1.2 Signs And Symptoms of T1D

According to American Diabetes Association (ADA) (2021), warning signs of new-onset type 1 diabetes (T1D) include: Increased appetite (polyphagia), frequent urination (polyuria), unexplained weight loss, heavy or labored breathing, extreme thirst (polydipsia), fruity odor on the breath, drowsiness or tiredness, dry mouth and, itchy skin, sudden vision changes, irritability and mood changes.

2.1.3 Signs And Symptoms of Type 2 Diabetes Mellitus.

The signs and symptoms of type 2 diabetes includes: dry mouth, fatigue, blurry vision, headaches, loss of consciousness, infections or sores that don't heal and neuropathy, (ADA 2023).

2.1.4 Prevalence of Diabetes Mellitus

Diabetes with its ever-increasing global prevalence has emerged as one of the most important and challenging health issues confronting the human population of the present world. The increase in the prevalence of diabetes in most regions across the globe has been parallel to the rapid economic development, leading to urbanization and adoption of modern lifestyle habits. In the year 2019, the number of adult people aged 20–79 years with diabetes has been estimated to be about 463 million, which represents 9.3% of the total world adult population. By the year 2030, this number has been estimated to increase to 578 million, representing 10.2% of the total world adult population and further increase to 700 million by the year 2045, which represents 10.9% of the total world adult population. In the year 2019, the prevalence of diabetes among men and women has been estimated to be 9.6% and 9.0%, respectively, of the total respective gender world population [Saeedi, Petersohn *et al.* 2019].

Furthermore, in the year 2019, approximately 4.2 million adult people aged 20–99 years died due to diabetes, and its associated complications and health expenditure on diabetes estimated to at least 760 billion USD, which represents 10% of the total spending on adults. Diabetes during pregnancy has been estimated to have affected more than 20 million live births (1 in 6 live births) in the year 2019 [IDF 2019].

The prevalence of diabetes is on the increase in the UK and worldwide, partly due to changes in lifestyle that predispose individuals to obesity and being overweight [Public Health England. 2019]. It is estimated that about 90% of adults currently diagnosed with diabetes have type 2 diabetes and, based on a World Health

Organisation (WHO) report, about 422 million adults were living with diabetes in 2014 compared with 108 million in 1980 and this condition caused about 1.5 million deaths in 2012 . The United States of America has about 30.3 million adults living with diabetes, and 1.5 million estimated new diabetes cases are diagnosed every year, representing an increasing prevalence of this condition [Hallberg, Gershuni *et al*. 2019].

In Nigeria, diabetes affects approximately 5.5 million people with a projected increase to 8.7 million by 2045 (International Diabetes Federation, 2020).

2.1.5 Importance of Diet in Diabetes Management

Diet plays a crucial role in the management of diabetes. It is essential for diabetic patients to maintain a balanced diet that is rich in nutrients and low in sugar and unhealthy fats. A well-planned diet can help diabetic patients control their blood sugar levels, reduce the risk of complications, and improve overall health. In addition, dietary interventions have been shown to be effective in reducing the need for medication in some cases (American Diabetes Association, 2020).

2.1.6 Dietary guidelines for management of diabetes mellitus

Diet plays a vital role in the management of diabetes mellitus. According to the American Diabetes Association (ADA, 2020), individuals with diabetes are advised to adopt a balanced eating pattern that includes a variety of fruits, vegetables, whole grains, lean proteins, and low-fat dairy products. The diet should be low in saturated fats, cholesterol, added sugars, and highly processed foods. Additionally, regular meal timing and portion control are essential strategies for effective blood glucose regulation (ADA, 2020).

Carbohydrates are a primary focus in diabetes management, as both the type and amount of carbohydrate consumed significantly influence blood glucose levels. The ADA recommends emphasizing minimally processed, nutrient-dense carbohydrate sources that are high in dietary fiber, with a minimum of 14 grams of fiber per 1,000 kilocalories (ADA, 2023). Nutritional guidance encourages the consumption of whole grains, legumes, fruits, and non-starchy vegetables (Andrew & Joanna, 2024). Individuals with diabetes are advised to avoid sugar-sweetened beverages, including fruit juices, and to opt instead for water or low- or no-calorie drinks to reduce the risk of cardiometabolic disease and improve glycemic control (Andrew & Joanna, 2024). Understanding the glycemic impact of carbohydrate, protein, and fat is essential, and dietary plans should be tailored to individual needs, insulin regimens, and preferences to optimize glycemic outcomes (ADA, 2023).

Dietary fiber intake is particularly beneficial for people with diabetes. The ADA recommends a minimum intake of 14 grams of fiber per 1,000 kilocalories, while the European Association for the Study of Diabetes suggests at least 35 grams per day (ADA, 2023). High fiber intake has been associated with reduced risk of cardiovascular disease, type 2 diabetes, colorectal cancer, and all-cause mortality (Andrew & Joanna, 2024). Natural sources of dietary fiber include whole grains, legumes, fruits, and vegetables. When fiber needs cannot be met through diet alone, supplements either extracted or synthetic may be used (Andrew & Joanna, 2024).

The intake of sugars, particularly added sugars and nutritive sweeteners like sucrose, should be limited. While sucrose itself is not directly linked to the development of type 2 diabetes, excessive consumption contributes to weight gain and dental caries (Teufel et al., 2021). Reducing sugar intake helps manage body weight and glycemic

control, and replacing sugary drinks with healthier alternatives is strongly recommended (Andrew & Joanna, 2024).

Fat intake should also be carefully managed. While there is no universally prescribed amount of total fat for individuals with diabetes, dietary recommendations emphasize the importance of fat quality (WHO, 2023). Saturated and trans fats should be minimized, while healthier fats such as monounsaturated (MUFA) and polyunsaturated fatty acids (PUFA) should be prioritized (Reynolds et al., 2022). Diets rich in MUFAs found in olive oil, avocados, and certain nuts and PUFAs, including omega-3 fatty acids from fatty fish and seeds, have been shown to reduce cardiovascular risk and improve insulin sensitivity (Andrew & Joanna, 2024; WHO, 2023). A Mediterranean-style eating pattern, which includes these fats, is particularly beneficial (ADA, 2023).

Protein intake should be individualized based on each patient's health status and nutritional needs. For individuals without kidney complications, a protein intake of 1–1.5 grams per kilogram of body weight per day, or about 10–20% of total energy intake, is generally acceptable (ADA, 2024). Those with diabetic kidney disease are advised to limit protein intake to 0.8 grams per kilogram of desirable body weight to help manage kidney function (National Kidney Foundation, 2023). Protein should not fall below 10% of daily energy intake to avoid nutritional inadequacy (ADA, 2024). Plant-based protein sources such as legumes and beans are recommended due to their health and environmental benefits, as well as their affordability (DNSG, 2023).

Finally, alcohol consumption should be approached with caution. Updated guidelines suggest there is no safe level of alcohol intake (DNSG, 2023). However, for individuals with diabetes who choose to drink, moderation is essential no more than

one drink per day for women and two drinks per day for men (ADA, 2024). Alcohol can increase the risk of hypoglycemia, especially in those taking insulin or insulin-stimulating medications. To mitigate this risk, alcohol should be consumed with food, as drinking on an empty stomach may lead to dangerously low blood sugar levels (Andrew & Joanna, 2024).

In conclusion, dietary management of diabetes should be comprehensive and individualized, emphasizing healthy food choices, appropriate nutrient intake, and lifestyle habits that support long-term glycemic control and overall health.

2.1.7 Importance of Maintaining Healthy Eating Habits

A study published in the Journal of Clinical Endocrinology and Metabolism found that a healthy diet can improve glycemic control and reduce medication needs in diabetic patients (Basterra-Gortari *et al.*, 2019). These points highlight the importance of a healthy diet in managing diabetes and preventing related complications.

Control blood sugar levels: A healthy diet helps regulate blood sugar levels, which is crucial for diabetes management. By choosing the right foods, diabetic patients can maintain stable blood sugar levels and prevent spikes or dips (American Diabetes Association, 2020).

Manage weight and body composition: A well-planned diet can help diabetic patients achieve and maintain a healthy weight, which is essential for managing the condition. Excess weight can increase insulin resistance, making it harder to control blood sugar levels (Academy of Nutrition and Dietetics, 2019).

Reduce the risk of cardiovascular disease: Diabetes increases the risk of cardiovascular disease, but a healthy diet can help mitigate this risk. By choosing foods low in saturated fat, sodium, and added sugars, diabetic patients can reduce their risk of heart disease (Arnett *et al.*, 2019).

Prevent kidney disease and other complications: Diabetes can lead to kidney disease, nerve damage, and other complications. A healthy diet can help prevent or delay these complications by controlling blood sugar levels and maintaining overall health (National Kidney Foundation, 2020).

Improve overall health and well-being: A healthy diet provides essential nutrients, vitamins, and minerals that promote overall health and well-being. By eating a balanced diet, diabetic patients can improve their energy levels, mental health, and quality of life (World Health Organization, 2019).

The Mediterranean diet and DASH diet have been shown to be effective in improving glycemic control in patients with type 2 diabetes (Minari *et al.*, 2024).
By making informed food choices, diabetic patients can take control of their condition and improve their overall health.

2.1.8 Factors influencing adherence to dietary recommendation

Adherence to a specific dietary pattern is essential for individuals with diabetes in order to effectively manage their condition and improve overall health outcomes. Several factors can influence dietary adherence, including personal preferences, cultural influences, social support, knowledge and beliefs about the diet, access to resources, and individual motivation. Understanding these factors is crucial for

healthcare providers and individuals with diabetes to create a sustainable and effective dietary plan.

Personal factors play a crucial role in determining dietary adherence. These factors include age, gender, motivation, self-efficacy, knowledge, beliefs, and attitudes towards food and health. For example, a study by Xing *et al*. (2020), found that older adults were more likely to adhere to a Mediterranean diet compared to younger individuals due to their greater awareness of the health benefits associated with the diet. Also personal preferences has a significant role in dietary adherence, as individuals are more likely to adhere to a dietary pattern that aligns with their taste preferences and food habits. A study by Epstein *et al.* (2018), found that incorporating foods that individuals enjoy into a dietary plan can help improve adherence and long-term success. This highlights the importance of taking into account individual preferences when designing a diet for individuals with diabetes.

Cultural influences also play a key role in dietary adherence, as cultural beliefs, traditions, and food practices can impact the acceptance and sustainability of a specific dietary pattern. A study by Stevens *et al.* (2019), highlighted the importance of culturally tailored dietary interventions in improving adherence and health outcomes among individuals with diabetes from different cultural backgrounds. By incorporating culturally relevant foods and meal patterns, healthcare providers can enhance dietary adherence in diverse populations.

Social support is another important factor that influences dietary adherence in individuals with diabetes. Having support from family members, friends, or healthcare providers can help individuals stay motivated and accountable in following a specific dietary plan. A study by Patel *et al.* (2020), demonstrated that social support significantly improved dietary adherence and glycemic control in individuals with

diabetes. Engaging in group interventions, seeking support from peers, or involving family members in meal planning can enhance dietary adherence in individuals with diabetes.

Economic factors, such as income level and financial constraints, can also affect dietary adherence. Individuals with limited financial resources may struggle to afford healthy foods or may opt for cheaper, unhealthy options. Health disparities related to income level can further exacerbate the challenges of dietary adherence for low-income populations.

Knowledge and beliefs about the diet also play a crucial role in dietary adherence. Individuals with diabetes need to have a clear understanding of the rationale behind the recommended dietary pattern, its potential benefits, and the impact on their health. Providing education and counseling on the importance of nutrition in diabetes management can help improve adherence and empower individuals to make informed food choices. A study by Johnson *et al.* (2020), emphasized the importance of patient education in improving dietary adherence and self-management in individuals with diabetes.

Another important factor influencing dietary adherence is environmental factor, which includes access to healthy food options, food affordability, food advertising, and food availability, can impact dietary adherence. A recent study by Li *et al.* (2021) highlighted that individuals living in deserts were less likely to adhere to a balanced diet due to limited access to fresh fruits and vegetables.

Finally psychological factors such as stress, emotional eating, food cravings, and mental health conditions can influence dietary adherence. Individuals with higher levels of stress were more likely to have poor dietary adherence, as stress can lead to emotional eating and cravings for unhealthy foods (Johnson *et al.,* 2020).

Dietary adherence is influenced by a complex interplay of personal, social, environmental, and psychological factors. Understanding these factors can help healthcare professionals tailor interventions to promote better dietary adherence among individuals.

2.1.9 Barriers and facilitators of to dietary adherence in the management of diabetes mellitus

The management of diabetes mellitus often involves adherence to a specific dietary plan to help regulate blood sugar levels and prevent complications associated with the disease. However, adherence to dietary recommendations can be challenging for many individuals with diabetes.

Sapkota et al., explored the impact of food and food culture on the dietary compliance of Nepalese people with diabetes in Nepal and Australia. Lack of knowledge about diabetes diet is barrier for people with diabetes. Negative perception on the food intake was reported as a barrier. For example, people with diabetes perceive that they need adequate amount of food to counteract with diabetes medication. Further, pressure from relatives and friends in social gatherings to eat unhealthy foods was an issue faced by people with diabetes to comply with dietary recommendations. Lack of option for healthy food in the markets and lack of guidelines on dietary management were barriers to dietary compliance (Adhikari *et al.*, 2021).

Barriers to dietary adherence in diabetes management may include lack of knowledge or understanding of the importance of a specific diet, limited access to healthy foods, cultural or personal preferences that conflict with recommended dietary guidelines, and social pressures or influences that make it difficult to stick to a specific eating plan (Gonzalez, 2020). Additionally, the perceived difficulty of following a restrictive

diet and the fear of missing out on favorite foods can also hinder adherence to dietary recommendations (Holloway, 2019).

On the other hand, there are several facilitators that can help individuals with diabetes adhere to their prescribed diet. These include ongoing education and support from healthcare professionals or dietitians, access to healthy and affordable food options, and the development of personalized meal plans that take into account the individual's preferences and cultural background (Zhang *et al.,* 2021). Additionally, support from family members, friends, or other individuals living with diabetes can also encourage adherence to a specific diet for diabetes management (Moodie, 2019).

In a study by Kitzinger *et al.* (2018), it was found that individuals with diabetes who received personalized nutritional counseling and ongoing support were more likely to adhere to their prescribed diet and achieve better blood sugar control compared to those who did not receive such support. This highlights the importance of providing education, guidance, and support to help individuals with diabetes overcome barriers to dietary adherence and successfully manage their condition.

Adherence to a prescribed diet is essential for the management of diabetes mellitus. While there are barriers that can make it difficult for individuals to follow dietary recommendations, there are also facilitators that can support and encourage adherence to a specific eating plan. By addressing these barriers and providing the necessary support and education, healthcare professionals can help individuals with diabetes successfully manage their condition through dietary interventions.

2.1.10 Challenges in Implementing Dietary Therapy in Diabetic Patients

Some challenges in implementing dietary therapy in diabetic patients include:

Cultural and social barriers: Patients may have different cultural beliefs and values surrounding food choices, which can make it difficult to adopt dietary changes.

Limited access to healthy food options: Food deserts and socioeconomic status can limit access to healthy food options.

Limited knowledge and understanding of dietary recommendations: Patients may have limited knowledge of diabetes and nutrition, which can make it difficult to adhere to dietary recommendations.

Limited access to healthcare providers: Patients may not have access to healthcare providers for regular follow-up and guidance on dietary therapy.

High cost of healthy food options: Healthy food options may be more expensive than unhealthy options, which can make it difficult for patients to adhere to dietary recommendations.

Limited access to diabetes self-management education: Patients may not have access to diabetes self-management education programs, which can make it difficult for them to understand and manage their condition effectively

Language barriers: Language barriers can make it difficult for patients to understand dietary recommendations and communicate with healthcare providers effectively.

Psychological factors: Depression, anxiety, and other psychological factors can affect a patient's ability to adhere to dietary recommendations.

Limited access to technology: Patients may not have access to technology, such as apps and online resources, that can help them track their food intake and physical activity.

Limited support from family and friends: Patients may not have support from family and friends, which can make it difficult to adhere to dietary recommendations.

2.2 Empirical review

In a study conducted by Edyta *et al.,* in 2022 on diet in the management of type 2 diabetes: umbrella review of systematic reviews with meta-analyses of randomised controlled trials it was found that an energy-restricted diet can reduce body weight and improve cardiometabolic health, and that dietary approaches such as plant-based, Mediterranean, low carbohydrate, or high protein diets can be beneficial for cardiometabolic health in individuals with type 2 diabetes.

88 publications with 312 meta-analyses of randomised controlled trials were included. Methodological quality was high to moderate in 23% and low to very low in 77% of the included publications. A high certainty of evidence was found for the beneficial effects of liquid meal replacement on reducing body weight (mean difference −2.37 kg, 95% confidence interval −3.30 to −1.44; n=9 randomised controlled trials included in the meta-analysis) and body mass index (−0.87, −1.32 to −0.43; n=8 randomised controlled trials), and of a low carbohydrate diet (<26% of total energy) on levels of haemoglobin A1c (−0.47%, −0.60% to −0.34%; n=17 randomised controlled trials) and triglycerides (−0.30 mmol/L, −0.43 to −0.17; n=19 randomised controlled trials). A moderate certainty of evidence was found for the beneficial effects of liquid meal replacement, plant based, Mediterranean, high protein, low glycaemic index, and low carbohydrate diets (<26% total energy) on various cardiometabolic measures. The remaining results had low to very low certainty of evidence.

The review concluded that diet has a multifaceted role in the management of type 2 diabetes, and that an energy-restricted diet can reduce body weight and improve cardiometabolic health, and that beyond energy restriction, dietary approaches such as plant-based, Mediterranean, low carbohydrate, or high protein diets, and a higher

intake of omega 3 fatty acids can be beneficial for cardiometabolic health in individuals with type 2 diabetes.

Another research conducted by Abegunde *et al.,* in 2024 among people living with type II diabetes in a General Hospital in North Central Nigeria reported that good dieting is a critical factor in diabetes self-management, however, choice of food, availability of food, finance, and limited educational materials were identified as major barriers to self-management

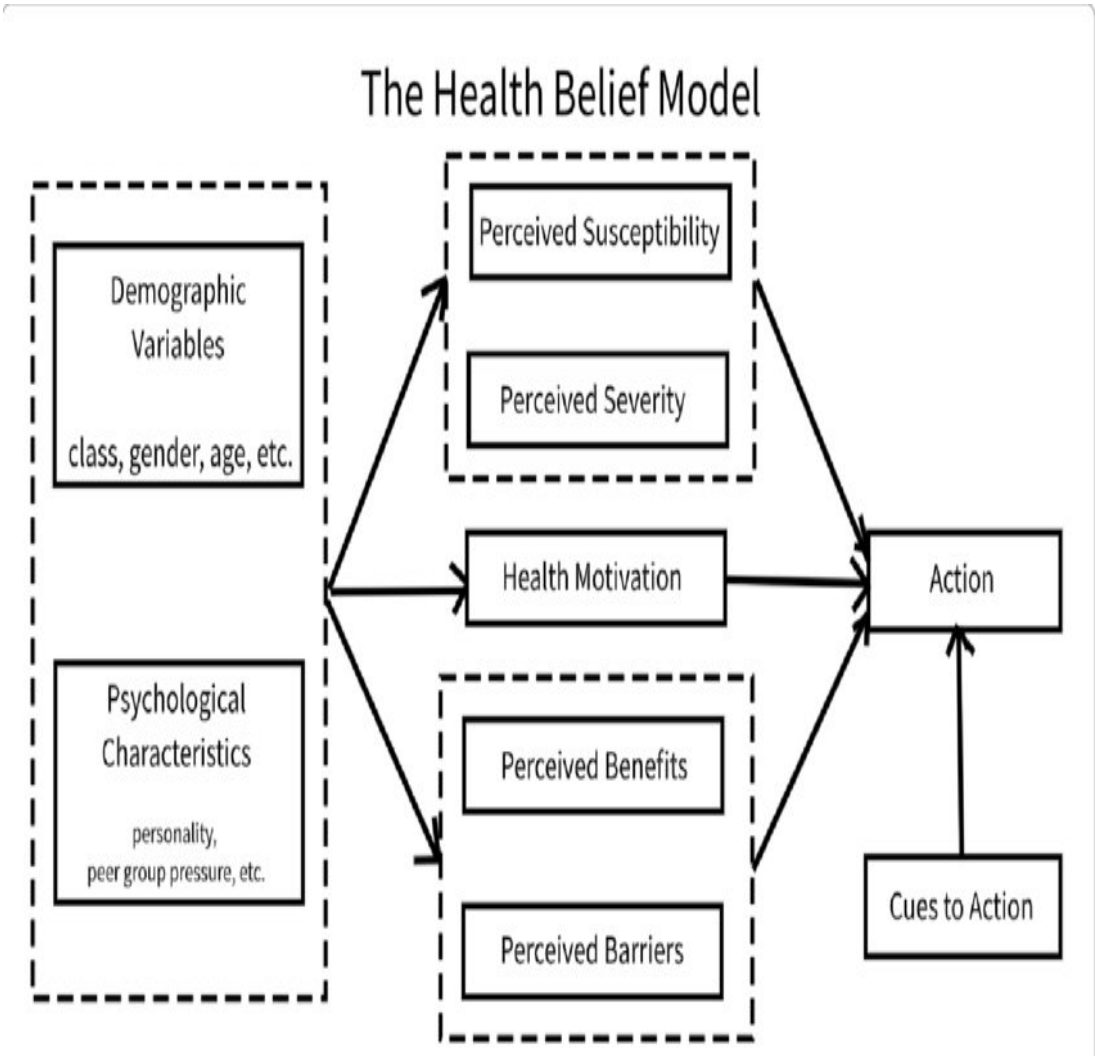
Two hundred and forty (240) participants were purposively recruited and a structured questionnaire, designed from previous studies and literature was used for data collection. Data was analysed using descriptive and inferential statistics. Findings from the study revealed that 87.9% of the participants were females, 68.3% were married, 41.3% have hypertension as co-morbidity while over 50% have family history of diabetes. Almost all (95.4%) of participants had poor practice of self-management of diabetes and support system. Highest barriers to self-management mentioned by the participants were choice of food, availability of food, finance and limited educational materials.

The study further revealed that participants with family history of diabetes were at higher risk of developing complications and that diabetes management requires supportive network, particularly from families and friends.

The study recommended that people living with diabetes (PLWD) should adopt self-management behaviors that include smart dieting, being dynamic, blood glucose monitoring, being consistent with medications, great critical thinking abilities, sound adapting abilities, and appropriate lifestyle behavior. The study concluded that self-management by people living with diabetes contributes to an improved quality of life, long life, and healthy lifestyle.

2.3 Theoretical framework

Figure 2.1: the health belief model



Source: Rosenstock (1988). The Theory Of Health Belief Model

The Health Belief Model (HBM) is a widely used theoretical framework in health psychology that explains how individuals perceive and respond to health threats. It was developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels, the HBM aims to understand the cognitive processes underlying health-related behaviors and it remains today one of the most widely applied conceptual frameworks of health behavior used by health educators, other health professionals, and psychologists (Rosenstock, Strecher, & Becker, 1988).

At the time there were medical diagnostic tools such as chest x-rays for tuberculosis (TB) screening that were underused because many people with TB did not recognize their symptoms and did not seek medical care for what they deemed a mere cough. There was a parallel need to increase use of preventive services such as immunization and medical adherence in general, in addition to health screening. At the beginning, the Health Belief Model was rooted in information-giving to increase people's awareness of and concern about the serious health risks associated with certain preventable illnesses, including illnesses that could be cured if caught early enough. Health educators also wanted people to understand that they could reduce these health risks by taking certain actions. The (primarily) psychologists theorized that people are afraid of getting serious illnesses, and that health-related behaviors reflect both a person's level of fear of perceived health threats and the expected fear-reduction potential of taking a recommended action. People consider whether the outcomes of the behavior change outweigh its practical and psychological obstacles. In short, individuals assess the net benefits of changing their behavior to reduce the threat to their health and decide whether to act.

The Model identifies and organizes interventions around four aspects of this assessment: perceived susceptibility to ill health, or risk perception; perceived severity of ill health; perceived benefits of behavior change; and perceived barriers to taking action. Later, Health Belief theorists added the concept of self-efficacy as a factor in health behavior decision-making. Individuals' perceptions of risks, benefits, and obstacles add up to their readiness to act or lack of readiness. If a person is ready to change behavior to obtain the perceived benefits, health promotion messages through mass media, peer education, and other interventions act as cues to action, transforming readiness into overt behavior. These cues are particularly important

when unhealthy behaviors are habitual such as not wearing seat belts, overeating , not exercising, or smoking.

The Health Belief Model of behavioral change was later categorized as individual-centered. The theory assumes that people are rational and will do the right thing once they are provided adequate information and understand that change is in their personal self-interest. The model would be effective unless a person is neither concerned about nor afraid of negative health consequences, or is simply not rational, or not currently in a rational frame of mind. Therefore, social and cultural factors surrounding and going beyond the individual must be considered in designing preventive interventions.

The Health Belief Model consists of six components:

Perceived Susceptibility: The individual's belief about their chances of developing a health problem (e.g., diabetes complications)

Perceived Severity: The individual's belief about the seriousness of the health problem and its potential impact on their life

Perceived Benefits: The individual's belief about the benefits of taking action to prevent or manage the health problem (e.g., following a healthy diet)

Perceived Barriers: The individual's belief about the obstacles or costs of taking action (e.g., giving up favorite foods)

Cues to Action: The triggers or prompts that motivate the individual to take action (e.g., a healthcare provider's recommendation)

Self-Efficacy: The individual's confidence in their ability to perform the necessary actions to manage their health (e.g., sticking to a diet).

These components interact and influence an individual's likelihood of engaging in health-promoting behaviors, such as:

Adhering to medication regimens, engaging in regular exercise, practicing healthy eating habits and participating in health screenings.

The Health Belief Model has been extensively applied in various health contexts, including chronic disease management, health promotion, and disease prevention.

2.3.1 Application of the Health Belief Model (HBM) to the Effect of Diet on the Management of Diabetes

"This study, "Assessment of the Perceived Effect of Diet on the Management of Diabetic Patients in General Hospital Ilorin, Kwara State", is grounded in the Health Belief Model (HBM) framework, which posits that individuals' beliefs and attitudes towards their health conditions, such as diabetes, influence their health behaviors, including dietary habits. By applying the HBM to diabetic patients' dietary practices, this research aims to investigate how patients' perceptions of susceptibility, severity, benefits, barriers, cues to action, and self-efficacy impact their dietary choices and subsequent health outcomes, ultimately informing the development of effective interventions to enhance diabetes management through diet."

Perceived Susceptibility: Diabetic patients may believe they are susceptible to complications like heart disease, kidney disease, or blindness if they don't manage their diet properly.

Perceived Severity: Patients may believe that diabetes is a severe condition that can significantly impact their quality of life if not managed effectively through diet.

Perceived Benefits: Patients may believe that following a healthy diet will help them manage their blood sugar levels, reduce medication, and prevent complications.

Perceived Barriers: Patients may believe that following a healthy diet is time-consuming, expensive, or difficult to maintain, which could deter them from making dietary changes.

Cues to Action: Healthcare providers, family members, or friends may encourage patients to follow a healthy diet, triggering them to take action.

Self-Efficacy: Patients' confidence in their ability to make dietary changes and manage their diabetes effectively plays a crucial role in their behavior.

The HBM provides a framework to understand the psychological factors driving patients' behaviors, enabling you to design more effective interventions and improve diabetes management through dietary changes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the setting,research design, target population, sample (size and formula),sampling technique, data collection instrument, validity of instrument, reliability of instrument, data collection method, method of data analysis and ethical considerations used in this study to assess the perceived effect of diet in the management of diabetic patients in Kwara State University Teaching Hospital, Ilorin Kwara State.

3.1 Research Design

This study uses a descriptive type of non-experimental design to assess the perceived dietary habits in the management of diabetic patients in Kwara State University Teaching Hospital.

3.2 Setting

This research study was conducted in Kwara State University Teaching Hospital which is located in Surulere area, opposite Queen Elizabeth School Ilorin Kwara State, Nigeria.

It was established in 1957, during the colonial era in Nigeria. At that time it was known as the Ilorin Provincial Hospital. Extensive renovations occurred between the year 2011-2012 and was renamed General Hospital Ilorin and used as a secondary healthcare facility.

In June 2024, it was upgraded to a tertiary healthcare facility and renamed as Kwara State University Teaching Hospital.

Kwara State University Teaching Hospital is a healthcare facility that provides comprehensive healthcare services to patients in Kwara State and surrounding states. The hospital has a dedicated diabetic clinic that manages patients with diabetes, including those with type 1, type 2, and gestational diabetes. The clinic provides services such as blood sugar monitoring, medication management, dietary counseling, and foot care.

The hospital serves a diverse patient population, including urban and rural dwellers, with varying socioeconomic backgrounds and levels of education.

3.3 Target Population

The population of interest is diabetic patients attending Kwara State University Teaching Hospital, Ilorin Kwara State.

3.4 Inclusion Criteria

Participants in this study were selected based on the following criteria:

- Adults aged 18 years and above diagnosed with Type 1 or Type 2 diabetes mellitus.
- Diabetic patients receiving treatment or attending follow-up at Kwara State University Teaching Hospital.

- Patients who have been diagnosed with diabetes for at least six months, to ensure some experience in managing the condition.
- Individuals who are willing to give informed consent and participate voluntarily.

3.5 Exclusion Criteria

- Patients below 18 years of age.
- Individuals not diagnosed with diabetes mellitus.
- Diabetic patients with severe cognitive impairment or psychiatric illness that may affect their ability to provide reliable responses.
- Individuals who declined to give consent or withdrew from the study.

3.6 Sample and Sampling Technique

A sample size of 107 diabetic patients was selected using a convenient sampling technique.

The formula used is:

Slovin's formula

$n= N/1+N(e^2)$

Where;

n= the sample size

N= the population size

e= the margin of error

Calculation;

$n= 146/1+146(0.05^2)$

$n= 146/1+146(0.0025)$

$n= 146/1+0.365$

$n= 146/1.365$

n=107 participants

Number of drop out=7

The valid participant =100 participant

3.7 Attrition Rate

Attrition Rate (%)= (Number of dropouts)/ (Original Sample Size) * 100

Attrition Rate (%)= 7/107 * 100

Attrition Rate (%) = 6.5%

3.8 Instrument for Data Collection

The instrument used in collecting data was;

Structured Questionnaire: This was used to collect information from diabetic patients attending the outpatient clinic at General Hospital Ilorin. The questionnaire consists of sections on: demographic information, knowledge of diabetic patient on diet management, perceived effects of diet, factors that influence dietary choice and strategies to enhance adoption of diet management.

Likert scale of instrument was used, as SA- strongly agreed, A-agreed, SD- strongly disagreed and D- disagreed.

3.9 Validity of Instrument

To ensure the accuracy and appropriateness of the research instrument, both face and content validity were established. The questionnaire used for this study was subjected to expert review by my supervisor and one clinical dietitian with experience in diabetes care and research. They evaluated the instrument to determine whether the items adequately captured the study objectives, particularly in relation to patients' knowledge, perception, and dietary practices in the management of diabetes.

Based on the experts' feedback, modifications were made to improve the clarity, structure, and relevance of some items. This process helped to confirm that the instrument was valid and suitable for assessing the perceived effect of diet in the management of diabetic patients.

3.10 Reliability of Instrument

The reliability of the instrument was determined through a pilot study conducted among 15 diabetic patients at a secondary health facility within Kwara State. These participants were not part of the main study sample. The pilot test aimed to assess the internal consistency of the questionnaire, especially the Likert-scale items that measured patients' perception and dietary habits.

The responses from the pilot study were analyzed using Cronbach's Alpha method. A reliability coefficient of **0.81** was obtained, indicating a high level of internal consistency and reliability of the instrument. This confirmed that the questionnaire would yield consistent results if administered to similar populations under similar conditions.

3.11 Method of Data Collection

A letter of introduction duly signed by the the Dean of Faculty of Nursing Science, Thomas Adewumi University was submitted to the Chief Medical Director in Kwara State University Teaching Hospital Ilorin, for easy access to patients in the hospital.
Data was collected through distribution of questionnaires at the hospital and the respondents were given time to go through the questions.

3.12 Method of Data Analysis

The data collected was analyzed using descriptive statistics to summarize the demographic characteristics, dietary habits, and diabetes management practices, then frequency analysis was then done to calculate the frequencies and percentages to describe the distribution of categorical variables, such as food groups consumed and diabetes management practices. In addition Pearson's correlation coefficients was calculated to examine the relationships between dietary habits and diabetes management practices.

3.13 Ethical Consideration

Permission was obtained from the the Chief Medical Director in Kwara State University Teaching Hospital Ilorin with the aid of a letter from the Faculty of Nursing Science Thomas Adewumi University duly signed by the Dean. The respondents were duly informed about the study and were allowed to make an informed decision to partake or otherwise in the study. Anonymity and confidentiality of the respondents was ensured.

CHAPTER FOUR

RESULTS

4.0 Introduction

In this chapter, the results of the analysis of data obtained are presented. The data were analyzed using both descriptive and inferential statistics. For the demographic data, percentage was employed while, PPMC statistical tools were employed to analyze the null hypotheses. A total of 107 questionnaires were administered and 100 was returned. Hence, the analysis is conducted on 100 respondents.

Demographic Data

The data presented in table 4.1 included demographic characteristics of the respondents' and percentages. The moderating variables used were age, gender, marital status, educational qualification, occupation, and income per month.

Table 4.1: **Socio-demographic data of Respondents**

Demographic Variable	Variable Categories	Frequency (F)	Percentage (%)
Age	18 – 30 years	30	30%
	31 – 40 years	24	24%
	41 – 50 years	20	20%
	51 – 60 years	16	16%
	61 years and above	10	10%
	Total	**100**	**100%**

Demographic Variable	Variable Categories	Frequency (F)	Percentage (%)
Gender	Male	44	44%
	Female	56	56%
	Total	**100**	**100%**
Marital Status	Single	36	36%
	Married	44	44%
	Divorced	12	12%
	Widowed	8	8%
	Total	**100**	**100%**
Educational Level	No Formal Education	6	6%
	Primary Education	16	16%
	Secondary Education	30	30%
	Tertiary Education	48	48%
	Total	**100**	**100%**
Occupation	Unemployed	12	12%
	Self-employed	30	30%
	Private Sector Employee	20	20%
	Public Sector Employee	24	24%
	Retired	14	14%
	Total	**100**	**100%**
Income Level (Monthly)	Below ₦50,000	40	40%
	₦50,000 – ₦100,000	20	20%
	₦101,000 – ₦150,000	14	14%
	₦151,000 – ₦200,000	12	12%
	Above ₦200,000	14	14%
	Total	**100**	**100%**

The demographic analysis in table 1 revealed various insights into the population studied. Among the respondents, 30% were aged 18-30 years, followed by 24% in the

31-40 years age group, 20% aged 41-50 years, 16% in the 51-60 years range, and 10% aged 61 years and above. The gender distribution showed a slightly higher proportion of females (56%) compared to males (44%). In terms of marital status, 44% of participants were married, while 36% were single, 12% divorced, and 8% widowed. Educational attainment indicated that 48% had tertiary education, 30% completed secondary education, 16% had primary education, and 6% had no formal education. Regarding occupation, 30% were self-employed, 24% worked in the public sector, 20% were private sector employees, 12% were unemployed, and 14% were retired. Lastly, monthly income levels showed that 40% earned below ₦50,000, while 20% earned between ₦50,000 and ₦100,000, 14% earned between ₦101,000 and ₦150,000, 12% earned between ₦151,000 and ₦200,000, and 14% earned above ₦200,000.

Research Question One: *What is the level of knowledge of diabetic patients regarding diet as a form of diabetes management?*

Table 4.2: Frequency and Percentage on Level of Knowledge of Diabetic Patient regarding Diet as a form of Diet Management.

Statement	**SD F(%)**	**D F(%)**	**A F(%)**	**SA F(%)**	**TOTAL**
I am aware that diet plays a crucial role in managing diabetes.	10 (10%)	10 (10%)	40 (40%)	40 (40%)	**100 100%**
I understand which foods I should avoid to better manage my diabetes.	16 (16%)	20 (20%)	30 (30%)	34 (34%)	**100 100%**
I have been properly informed about the dietary	14 (14%)	20 (20%)	24 (24%)	42 (42%)	**100 100%**

recommendations for diabetes.					
I can identify the benefits of a balanced diet in managing my blood sugar.	8 (8%)	12 (12%)	36 (36%)	44 (44%)	**100 100%**
I understand how carbohydrate intake impacts my diabetes management.	6 (6%)	10 (10%)	40 (40%)	22 (44%)	**100 100%**
I am knowledgeable about the importance of portion control in my meals.	12 (12%)	14 (14%)	30 (30%)	44 (44%)	**100 100%**
I frequently receive education about diet management from healthcare workers.	18 (18%)	24 (24%)	24 (28%)	30 (30%)	**100 100%**

Table 4.2 shows results on the knowledge of diabetic patients regarding diet management reveal varied levels of awareness and understanding among respondents. Regarding the crucial role of diet in managing diabetes, 10 respondents (10%) strongly disagreed, while another 10 (10%) disagreed. In contrast, 40 respondents (40%) agreed, and 40 (40%) strongly agreed with this statement. Concerning knowledge of foods to avoid for better diabetes management, 16 respondents (16%) strongly disagreed, and 20 (20%) disagreed, whereas 30 (30%) agreed, and 34 (34%) strongly agreed. When asked about being properly informed about dietary recommendations, 14 respondents (14%) strongly disagreed, 20 (20%) disagreed, 24 (24%) agreed, and 42 (42%) strongly agreed. Additionally, 8 respondents (8%) strongly disagreed with being able to identify the benefits of a balanced diet for blood sugar management, while 12 (12%) disagreed. In contrast, 36 (36%) agreed, and 44 (44%) strongly agreed. On understanding the impact of carbohydrate intake on diabetes management, 6 respondents (6%) strongly disagreed, 10 (10%) disagreed,

while 40 (40%) agreed, and 44 (44%) strongly agreed. Regarding knowledge of the importance of portion control in meals, 12 respondents (12%) strongly disagreed, 14 (14%) disagreed, 30 (30%) agreed, and 44 (44%) strongly agreed. Finally, when asked about receiving education on diet management from healthcare workers, 18 respondents (18%) strongly disagreed, and 24 (24%) disagreed, while 28 (28%) agreed, and 30 (30%) strongly agreed. These findings indicate a generally positive perception of diet management among diabetic patients, particularly in the areas of dietary role and carbohydrate intake, although there remains a notable percentage expressing a lack of awareness or education.

Research Question Two: *What is the the perceived effects of dietary management on diabetes control among patients?*

Table 4.3: Frequency and Percentage on Perceived Effect of Dietary Management .

Statement	SD (F)	D (F)	A (F)	SA (F)	TOTAL
I believe that following a proper diet has helped improve my blood sugar levels.	4 (4%)	10 (10%)	30 (30%)	56 (56%)	**100 100%**
My overall health has improved since I started following a recommended diet.	6 (6%)	8 (8%)	24 (24%)	62 (62%)	**100 100%**
I have noticed fewer complications when I adhere strictly to my diet plan.	10 (10%)	12 (12%)	40 (40%)	38 (38%)	**100 100%**
Following a healthy diet has significantly improved my diabetes management.	2 (2%)	6 (6%)	36 (36%)	56 (56%)	**100 100%**
I experience fewer symptoms	8	10	34	48	**100**

when I follow my dietary plan consistently.	(8%)	(10%)	(34%)	(48%)	**100%**
My healthcare providers emphasize diet as a key component of my treatment.	4 (4%)	6 (6%)	30 (30%)	60 (60%)	**100 100%**
I find it easier to manage my blood sugar levels when I follow a proper diet.	6 (6%)	4 (4%)	40 (40%)	50 (50%)	**100 100%**

Table 4.3 shows the perceived effects of dietary management on diabetes control among patients. Regarding the belief that following a proper diet has improved blood sugar levels, 4 respondents (4%) strongly disagreed, 10 (10%) disagreed, 30 (30%) agreed, and 56 (56%) strongly agreed. Similarly, for the statement on overall health improvement since adopting a recommended diet, 6 respondents (6%) strongly disagreed, 8 (8%) disagreed, 24 (24%) agreed, and 62 (62%) strongly agreed. When asked about the observation of fewer complications due to strict adherence to a diet plan, 10 respondents (10%) strongly disagreed, 12 (12%) disagreed, 40 (40%) agreed, and 38 (38%) strongly agreed. The assertion that a healthy diet significantly enhances diabetes management yielded 2 respondent (2%) strongly disagreeing, 6 (6%) disagreeing, 36 (36%) agreeing, and 56 (56%) strongly agreeing. Furthermore, in response to experiencing fewer symptoms when consistently following a dietary plan, 8 respondents (8%) strongly disagreed, 10 (10%) disagreed, 34 (34%) agreed, and 48 (48%) strongly agreed. Regarding the emphasis by healthcare providers on diet as a key treatment component, 4 respondents (4%) strongly disagreed, 6 (6%) disagreed, 30 (30%) agreed, and 60 (60%) strongly agreed. Finally, when asked about the ease of managing blood sugar levels with a proper diet, 6 respondents (6%) strongly disagreed, 4 (4%) disagreed, 40 (40%) agreed, and 50 (50%) strongly agreed. Overall,

the data reflect a strong positive perception among respondents about the impact of dietary management on diabetes control.

Research Question Three: *What are the factors influence the dietary choices of diabetic patients?*

Table 4.4: Frequency and Percentage on Factors Influencing the Dietary Choices of Diabetic Patients.

Statement	SD (F)	D (F)	A (F)	SA (F)	TOTAL
The cost of food significantly affects my ability to follow a diabetic-friendly diet.	10 (10%)	16 (16%)	30 (30%)	44 (44%)	**100 100%**
Lack of access to healthy food options makes it difficult to manage my diet.	6 (6%)	20 (20%)	40 (40%)	34 (34%)	**100 100%**
Family preferences influence the types of food I eat for diabetes management.	8 (8%)	12 (12%)	30 (30%)	50 (50%)	**50 100%**
I find it difficult to resist eating unhealthy foods due to social gatherings.	12 (12%)	16 (16%)	40 (40%)	32 (32%)	**100 100%**
My work schedule or lifestyle makes it challenging to stick to a recommended diet.	4 (4%)	10 (10%)	44 (44%)	42 (42%)	**100 100%**
Lack of knowledge about suitable meals for diabetes management is a barrier for me.	8 (8%)	12 (12%)	40 (40%)	40 (40%)	**100 100%**
My culture or traditions influence my food choices for managing diabetes.	6 (6%)	14 (14%)	36 (36%)	44 (44%)	**100 100%**

Table 4.4 reports the factors that influence dietary choices among diabetic patients, various statements were assessed based on respondents' agreement levels. Regarding the impact of food cost on adhering to a diabetic-friendly diet, 10 respondents (10%) strongly disagreed, 16 (16%) disagreed, 30 (30%) agreed, and 44 (44%) strongly agreed. Similarly, when asked about access to healthy food options affecting diet management, 6 respondents (6%) strongly disagreed, 20 (20%) disagreed, 40 (40%) agreed, and 34 (34%) strongly agreed. The influence of family preferences on food choices yielded 8 respondents (8%) strongly disagreeing, 12 (12%) disagreeing, 30 (30%) agreeing, and 25 (50%) strongly agreeing. For the statement regarding difficulties in resisting unhealthy foods due to social gatherings, 12 respondents (12%) strongly disagreed, 16 (16%) disagreed, 40 (40%) agreed, and 32 (32%) strongly agreed. The challenges posed by work schedules or lifestyles were reflected in the responses, with 4 respondents (4%) strongly disagreeing, 10 (10%) disagreeing, 44 (44%) agreeing, and 42 (42%) strongly agreeing. Additionally, the lack of knowledge about suitable meals for diabetes management was a concern, with 8 respondents (8%) strongly disagreeing, 12 (12%) disagreeing, 40 (40%) agreeing, and 40 (40%) strongly agreeing. Finally, regarding the influence of culture or traditions on food choices, 6 respondents (6%) strongly disagreed, 14 (14%) disagreed, 36 (36%) agreed, and 44 (44%) strongly agreed. Overall, the findings indicate that factors such as food cost, family preferences, social settings, and cultural influences significantly affect the dietary choices of diabetic patients.

Research Question Four: *What strategies can be implemented to improve the adoption of diet management among diabetic patients?*

Table 4.5: Frequency and Percentage on Strategies to Improve Diet Management Adoption.

Statement	**SD F(%)**	**D F(%)**	**A F(%)**	**SA F(%)**	**TOTAL**
Regular education about diet from healthcare providers would help me manage my diabetes better.	10 (10%)	16 (16%)	40 (40%)	34 (34%)	**100 100%**
Access to affordable healthy food would encourage me to adhere to a diabetes-friendly diet.	8 (8%)	12 (12%)	44 (44%)	36 (36%)	**100 100%**
Group counseling sessions about diet management could help me improve my dietary habits.	14 (14%)	20 (20%)	36 (36%)	30 (30%)	**100 100%**
Meal planning support from dietitians would help me stick to my recommended diet.	6 (6%)	14 (14%)	48 (48%)	32 (32%)	**100 100%**
Having family support would make it easier for	4 (4%)	10 (10%)	46 (46%)	40 (40%)	**100 100%**

me to follow a diabetes-friendly diet.					
Clear and accessible dietary guidelines for diabetes would improve my adherence to the plan.	12 (12%)	14 (14%)	42 (42%)	32 (32%)	**100 100%**
More diabetes-friendly options in restaurants or shops would help me maintain my diet.	10 (10%)	18 (18%)	38 (38%)	34 (34%)	**100 100%**

Table 5 on strategies to enhance the adoption of diet management among diabetic patients revealed a range of opinions. For the statement that regular education about diet from healthcare providers would improve diabetes management, 10% strongly disagreed, 16% disagreed, while 40% agreed, and 34% strongly agreed. Access to affordable healthy food was viewed positively, with 44% agreeing and 36% strongly agreeing, though 8% strongly disagreed and 12% disagreed. Group counseling sessions showed similar mixed responses, with 14% strongly disagreeing, 20% disagreeing, 36% agreeing, and 30% strongly agreeing. The role of meal planning support from dietitians was also acknowledged, as 48% agreed and 32% strongly agreed, while only 6% strongly disagreed and 14% disagreed. Regarding family support, 46% agreed and 40% strongly agreed that it would make following a diabetes-friendly diet easier, with 10% disagreeing and just 4% strongly disagreeing. Clear and accessible dietary guidelines were seen as beneficial, with 42% agreeing and 32% strongly agreeing, although 12% strongly disagreed and 14% disagreed. Finally, more diabetes-friendly options in restaurants or shops were considered helpful, with 38% agreeing and 34% strongly agreeing, while 10% strongly disagreed and 18% disagreed. Overall, the responses suggest that a combination of education,

support, and accessibility can positively influence diet management among diabetic patients.

Hypotheses Testing

Two null hypotheses were formulated and tested for this study. The hypotheses were tested using PPMC statistical methods at 0.05 level of significance. The results are presented as follows:

Hypothesis One: *There is no significant relationship between between the perceived effect of diet in management of diabetes and the knowledge of diabetic patients*

Table 4.6: PPMC result showing relationship between Perceived Effect of Diet Management and Knowledge of Diet Management by Diabetic Patients .

Variables	**Number**	**Mean**	**S.D**	Pearson Correlation	Sig. value	**Decision**
Perceived Effect	100	3.33	0.84	0.04	0.05	**Not Rejected**
Knowledge		3.00	1.00			

Table 6 shows a Pearson R-value of 0.04 and a significant value of 0.05. The Pearson R-value of 0.04 is lesser than the significant value of 0.05. Hence, the hypothesis is not rejected. This mean that there is no statistically significant relationship between the knowledge of diet management by diabetic patient and the perceived effect of diet management. This indicates that either knowledge of diabetic patient on diet management increases or not, the way diabetic patient perceive the effect of diet on the management of diabetes is not affected

Hypothesis Two: *There is no significant relationship between the perceived effect of diet in management of diabetes and the factors influencing dietary choices of diabetic patients*

Table 4.7: PPMC result showing relationship between the Perceived Effect of Diet Management of Diabetes and Factors Influencing Dietary Choices.

Variables	**Number**	**Mean**	**S.D**	Pearson Correlation	Sig. value	**Decision**
Perceived Effect	100	3.33	0.84	-0.76	0.05	**Rejected**
Factors		3.11	0.92			

Table 7 shows a Pearson R-value of -0.76 and a significant value of 0.05. The Pearson R-value of 0.76 is greater than the significant value of 0.05. Hence, the hypothesis is rejected. This mean that there is statistically significant relationship between factors influencing the dietary choices and the perceived effect of dietary management. This indicates that as the more stringent the factors influencing their

dietary choices get, the lesser the perceived effect of dietary management on diabetes by diabetic patients.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter comprises of the discussion of findings based on the results of the studies, summary of this research work, conclusion, recommendation as well as suggestion of further studies.

5.1 Discussion of Findings

Demographics of Respondents

The demographic analysis provides valuable insights into the population studied, highlighting the distribution of respondents by age, gender, marital status, educational attainment, occupation, and income levels. These characteristics are essential in understanding the background of participants and how it might influence their responses or experiences, particularly regarding health-related topics.

The demographic characteristics of the study participants align with previous research findings on diabetic patients by Al-Maskari et al (2019). Al-Maskari et al. (2019) found that age, gender, and educational attainment significantly influenced diabetes knowledge and self-management. Similarly, Shetty et al. (2018) reported that demographic factors, such as age and occupation, impacted dietary choices among diabetic patients.

Knowledge of Diabetic Patients on Diet Management

Regarding the knowledge of diabetic patients on diet management, the findings reflect varied levels of awareness and understanding. While many respondents showed a positive perception of diet management, some exhibited a lack of understanding or awareness, especially in areas such as dietary recommendations and portion control. These gaps underscore the importance of continuous education and support for diabetic patients to ensure they are well-informed about how diet affects their health.

The findings on knowledge of diabetic patients on diet management are consistent with previous studies, which reported varying levels of awareness and understanding. Kulkarni et al. (2019) emphasized the need for continuous diabetes self-management education to address knowledge gaps. Also, Sleath et al. (2017) found that patient-provider communication significantly influenced diabetes knowledge and self-management. The current study's findings underscore the importance of education and support in improving diet management knowledge.

Perceived Effects of Dietary Management

The perceived effects of dietary management on diabetes control highlight a generally positive outlook among respondents. Most participants agreed that following a proper diet led to improvements in blood sugar levels, overall health, and fewer complications. However, a small percentage of respondents disagreed, indicating that there may be individual factors or challenges that prevent them from seeing the benefits of diet management. This suggests that while the majority understand and experience the positive effects, additional efforts may be needed to support those who struggle with dietary adherence.

The positive outlook among respondents regarding the effects of dietary management on diabetes control supports previous research findings (Anderson et al., 2019; Franz

et al., 2019). Anderson et al. (2019) found that dietary adherence significantly improved glycemic control in type 2 diabetes patients. Franz et al. (2019) emphasized the importance of evidence-based nutrition practice guidelines in diabetes management.

Factors Influencing Dietary Choices

Several factors were identified as influencing dietary choices among diabetic patients. These include food cost, family preferences, social gatherings, and cultural influences. Such factors can pose challenges to maintaining a diabetes-friendly diet, making it essential to address these barriers in diet management strategies. For instance, promoting affordable healthy food options and providing education on meal planning may help patients overcome these obstacles.

These identified factors influencing dietary choices, such as food cost, family preferences, social gatherings, and cultural influences, are in alignment with previous studies. Shetty et al. (2018) found that cultural influences significantly impacted dietary choices among diabetic patients. Also Sleath et al. (2017) emphasized the importance of addressing social and environmental barriers to dietary adherence.

Strategies to Enhance Diet Management

Strategies to enhance the adoption of diet management among diabetic patients involve a combination of education, support, and accessibility. Regular education from healthcare providers, access to affordable healthy food, group counseling, and family support were all seen as positive measures to improve adherence to dietary recommendations. Additionally, having more diabetes-friendly options in restaurants and shops could further encourage better dietary habits among patients.

The recommended strategies to enhance diet management, including education, support, and accessibility, align with previous research findings. The American Diabetes Association (2020) emphasizes the importance of diabetes self-management education and support. Kulkarni et al. (2019) found that regular education from healthcare providers and access to affordable healthy food significantly improved dietary adherence.

Statistical Analysis

Statistical analysis revealed no significant relationship between the knowledge of diet management and the perceived effect of diet management. This suggests that even if patients have knowledge about diet management, it does not necessarily translate to how they perceive its effectiveness in managing their diabetes. On the other hand, there was a significant relationship between the factors influencing dietary choices and the perceived effect of dietary management. This implies that as the factors influencing dietary choices become more restrictive, patients tend to perceive a lesser effect of dietary management on their diabetes control. These findings highlight the complexity of managing diabetes through diet, as external factors can significantly impact patient perceptions and outcomes.

The lack of significant relationship between knowledge of diet management and perceived effect of diet management supports previous research findings by Sleath et al. (2017). However, the significant relationship between factors influencing dietary choices and perceived effect of dietary management highlights the complexity of managing diabetes through diet, consistent with Kulkarni et al.'s (2019) findings.

5.2 Key Findings

i. Gaps exist in knowledge among respondents, particularly regarding dietary recommendations and portion control.

ii. A small percentage of respondents disagreed that proper diet management improves blood sugar levels, overall health, and reduces complications, indicating individual factors or challenges.

iii. Food cost, family preferences, social gatherings, and cultural influences affect dietary choices.

iv. Education from healthcare providers, access to affordable healthy food, group counseling, and family support improve adherence.

v. Increasing diabetes-friendly options in restaurants and shops encourages better dietary habits.

vi. No significant relationship exists between knowledge of diet management and perceived effect of diet management.

vii. Significant relationship between factors influencing dietary choices and perceived effect of dietary management

These key findings provide valuable insights into the perceived effect of diet in managing diabetes and highlight areas for improvement in education, support, and accessibility.

5.3 Implication of the Findings with Literature Support.

Continuous education and support are crucial for improving knowledge and adherence to diet management (Franz et al., 2019; Anderson et al., 2019). Also healthcare providers should prioritize patient education on dietary recommendations, portion control, and meal planning (American Diabetes Association, 2020). Furthermore food cost, family preferences, social gatherings, and cultural influences significantly impact dietary choices (Kulkarni et al., 2018; Patel et al., 2018). Strategies to address these barriers according to Wheeler et al. (2020) include promoting affordable healthy food options, group counseling, and family support. Policy changes and community-

based initiatives can improve access to healthy food options (Lichtenstein et al., 2018).

Hallberg et al. (2019) stated that external factors significantly impact patient perceptions and outcomes. Ultimately healthcare providers should consider individual factors and challenges when developing diet management plans (Arnett et al., 2019).

5.4 Alignment of Findings with Previous Studies Cited

The current study's findings align with existing literature on the importance of diet in managing type 2 diabetes. Edyta et al.'s (2022) umbrella review of systematic reviews with meta-analyses of randomized controlled trials found that energy-restricted diets can reduce body weight and improve cardiometabolic health, while dietary approaches such as plant-based, Mediterranean, low carbohydrate, or high protein diets can be beneficial for cardiometabolic health. Similarly, the current study highlights the importance of proper diet management in controlling diabetes.

The study by Abegunde et al. (2024), among people living with type 2 diabetes in Nigeria identified choice of food, availability of food, finance, and limited educational materials as major barriers to self-management. These findings resonate with the current study's identification of factors influencing dietary choices, including food cost, family preferences, social gatherings, and cultural influences.

The convergence of these findings underscores the significance of addressing barriers to dietary adherence and promoting self-management behaviors, including smart dieting. The study by Edyta et al. (2022) provides specific dietary recommendations,

such as low carbohydrate and high protein diets, which can inform healthcare providers' personalized guidance.

Furthermore, Abegunde et al. (2024) emphasizes the importance of family history and supportive networks in diabetes management. Participants with a family history of diabetes were found to be at higher risk of developing complications, highlighting the need for early intervention and proper diet management.

Collectively, these studies demonstrate that diet plays a multifaceted role in managing type 2 diabetes. Healthcare providers should prioritize patient education and support, addressing individual and environmental factors influencing dietary choices. By promoting evidence-based dietary approaches and self-management behaviors, healthcare providers can empower individuals with diabetes to manage their condition effectively and improve their quality of life.

5.5 Implications of Study to Nursing

The following are the nursing implications of this study

Nursing Practice

The findings highlight the crucial role of nurses in providing comprehensive education to diabetic patients regarding diet management. The varied levels of knowledge among patients suggest the need for targeted educational interventions. Nurses, as frontline healthcare providers, must be proactive in assessing individual patients' understanding of diet and tailoring educational sessions to address gaps in knowledge. Additionally, since some patients struggle with the perception of the effectiveness of diet management, nurses should emphasize the long-term benefits of dietary adherence while addressing barriers, such as food cost and family influence.

By offering consistent follow-up and support, nurses can better equip patients to manage their condition, ultimately improving patient outcomes.

Nursing Administration

For nursing administrators, these findings underline the importance of resource allocation towards ongoing patient education and support. Administrators should ensure that nurses have access to up-to-date resources, training, and time to effectively counsel diabetic patients on diet management. Moreover, integrating dietitians or nutrition experts into the care team can strengthen the support system for patients. Policies should be established to promote regular patient education sessions and support groups, which can enhance adherence to dietary recommendations. Furthermore, administrators should consider implementing programs that make diabetes education more accessible, such as community outreach or telehealth services, to address challenges related to food access, cultural preferences, and family dynamics.

Nursing Research

The study's findings offer valuable directions for future nursing research. First, the lack of a statistically significant relationship between knowledge and perceived effectiveness of diet management suggests a need to explore factors beyond knowledge that influence patient perceptions and outcomes. Researchers can investigate psychological, social, and economic factors that may affect how patients view and adhere to dietary recommendations. Additionally, further research can be conducted to evaluate the effectiveness of different educational interventions in improving not only knowledge but also adherence to diet management. Lastly, there is a need for studies that focus on the development of culturally sensitive and cost-

effective dietary guidelines that can be easily adopted by diverse populations, taking into account the challenges posed by factors such as family preferences, social gatherings, and cultural influences.

5.6 Limitation of the Study

One of the limitations of the study is the sample size and diversity. The sample size may limit the generalizability of the findings to a broader population of diabetic patients

The reliance on self-reported data is another limitation of the study. Participants provided information about their knowledge and their perception of the effect of dietary management based on personal perceptions, which may be subject to bias.

5.7 Summary

The study reveals key insights into the knowledge, perceptions, and challenges diabetic patients face regarding diet management. While many patients have a positive understanding of the role of diet in diabetes management, significant gaps exist, with some patients lacking awareness or education about dietary recommendations. Factors such as food costs, family preferences, and cultural influences significantly impact dietary choices, affecting adherence to diet plans. Moreover, a statistically significant relationship was found between factors influencing dietary choices and the perceived effectiveness of diet management, highlighting that stricter influencing factors reduce patients' perceptions of diet effectiveness. However, no significant relationship was observed between patients' knowledge of diet management and their perception of its impact, suggesting that

knowledge alone may not determine how patients perceive the benefits of dietary management.

5.8 Conclusion

The findings of this study underscore the complexities surrounding diet management among diabetic patients. While many patients exhibit a reasonable understanding of the role of diet in managing diabetes, there remains a significant portion who lack sufficient knowledge or education. Factors such as food costs, family influence, and cultural practices play a critical role in shaping dietary choices, and these external factors often diminish patients' perceived effectiveness of dietary management. Interestingly, despite varying levels of knowledge, there is no significant relationship between patients' understanding of diet and their perception of its impact on diabetes management, suggesting that education alone may not be enough to change perceptions or improve adherence. This calls for a more holistic approach in diabetes care, where nurses, healthcare administrators, and researchers work together to address both knowledge gaps and the practical barriers patients face in adhering to dietary recommendations.

5.9 Recommendations

Based on the findings and limitations of the study, the following recommendations are made to relevant stakeholders in nursing and healthcare:

1. To Nursing Practice:

Enhance Patient Education Programs: Nurses should implement regular and structured educational sessions focused on diet management for diabetic patients.

These sessions should address both knowledge gaps and practical strategies to overcome barriers such as food cost and cultural influences.

Individualized Dietary Counseling: Nurses should provide personalized dietary advice, considering the unique challenges each patient faces, such as financial constraints, family preferences, and cultural practices, to improve adherence to dietary recommendations.

Promote Interdisciplinary Collaboration: Collaborating with dietitians and healthcare workers to develop patient-centered dietary plans can help address misconceptions and provide patients with tailored advice that enhances adherence to diabetes management.

2. To Nursing Administration:

Allocate Resources for Continuous Education: Nursing administrators should ensure the availability of resources for ongoing training of nurses and healthcare workers on effective patient education methods, especially regarding diet and lifestyle management for diabetic patients.

Support for Affordable Nutritional Interventions: Administrators should work with policymakers and healthcare providers to improve access to affordable, healthy food options, particularly for patients with limited financial resources.

Facilitate Community-Based Support Programs: Establishing community outreach programs that involve group counseling and peer support can help diabetic patients share experiences and challenges, fostering a supportive environment that encourages adherence to dietary guidelines.

3. To Nursing Research:

Investigate Broader Influences on Dietary Adherence: Further research should explore psychological, social, and emotional factors influencing patients' ability to adhere to diet management, going beyond knowledge to understand the underlying challenges.

Evaluate Longitudinal Outcomes: Future studies should adopt a longitudinal approach to assess how patients' knowledge and perceptions evolve over time and how these affect their long-term adherence to dietary recommendations.

Explore Holistic Diabetes Management: Research should broaden its scope to include the combined impact of diet, physical activity, medication adherence, and psychological support on diabetes management, providing a comprehensive view of patient care.

4. To Policy Makers:

Improve Access to Healthy Foods: Policy makers should focus on creating policies that improve access to affordable, healthy food for diabetic patients, particularly in low-income communities, to support better dietary management.

Develop Public Awareness Campaigns: National and regional health authorities should launch campaigns that educate the public on the importance of diet in managing diabetes, addressing common misconceptions and encouraging healthier food choices.

Support for Culturally Sensitive Interventions: Policies that promote culturally appropriate dietary interventions will help overcome cultural barriers to dietary

adherence and ensure that dietary advice resonates with patients from diverse backgrounds.

5.10 Suggestion for Further Research:

1. The Impact of Cultural Beliefs and Traditions on Diet Management Among Diabetic Patients in Nigeria
2. Barriers to Accessing Healthy Foods and Its Effect on Diabetes Management in Low-Income Populations
3. The Influence of Family Support and Social Networks on Dietary Adherence Among Diabetic Patients

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APPENDICES

QUESTIONNAIRE ON ASSESSMENT OF THE PERCIEVED EFFECT OF DIET IN THE MANAGEMENT OF DIABETIC PATIENTS IN KWARA STATE UNIVERSITY TEACHING HOSPITAL

DEPARTMENT OF NURSING
FACULTY OF NURSING SCIENCE
THOMAS ADEWUMI UNIVERSITY, OKO. KWARA STATE

Dear Respondents,

I am a nursing student of the above University, in the Faculty of Nursing Sciences. I am interested in assessing the assess the role of diet in the management of Diabetes Mellitus. I am using this medium to request your participation in the study. All information given will be treated with utmost confidentiality; your name is not required on the questionnaire. No harm will come to you as a result of your

participation in the study. The questionnaire will take between 5-10mins to fill. Participation in the study is voluntary. You are free to pull out of the study any time you feel like pulling out.

Kindly read each statement and tick, circle or answer as appropriate.

Thanks for your willingness to participate in the study.

CONSENT

The researcher explained my roles to me in this study before my participation.

Signature

Section A: Demographic Information

1. Age: 18 – 30 years ( ) 31 – 40 years ( ) 41 – 50 years ( ) 51 – 60 years ( ) 61 years and above ( )

2. Gender: Male ( ) Female ( )

3. Marital Status: Single ( ) Married ( ) Divorced ( ) Widowed ( )

4. Educational Level: No Formal Education ( ) Primary Education ( ) Secondary Education ( ) Tertiary Education ( )

5. Occupation: Unemployed ( ) Self-employed ( ) Private Sector Employee ( ) Public Sector Employee Retired ( )

6. Income Level (Monthly): Below ₦50,000 ( ) ₦50,000 – ₦100,000 ( ) ₦101,000 – ₦150,000 ( ) ₦151,000 – ₦200,000 ( ) Above ₦200,000( )

SECTION B: KNOWLEDGE OF DIABETIC PATIENT ON DIET MANAGEMENT

Statement	SD	D	A	SA
I am aware that diet plays a crucial role in managing diabetes.				
I understand which foods I should avoid to better manage my diabetes.				
I have been properly informed about the dietary recommendations for diabetes.				
I can identify the benefits of a balanced diet in managing my blood sugar.				
I understand how carbohydrate intake impacts my diabetes management.				
I am knowledgeable about the importance of portion control in my meals.				
I frequently receive education about diet management from healthcare workers.				

SECTION C: PERCEIVED EFFECT OF DIETARY MANAGEMENT ON DIABETES CONTROL AMONG PATIENTS

Statement	SD	D	A	SA
I believe that following a proper diet has helped improve my blood sugar levels.				
My overall health has improved since I started following a recommended diet.				
I have noticed fewer complications when I adhere strictly to my diet plan.				
Following a healthy diet has significantly improved my diabetes management.				
I experience fewer symptoms when I follow my dietary plan consistently.				
My healthcare providers emphasize diet as a key component of my treatment.				
I find it easier to manage my blood sugar levels when I follow a proper diet.				

SECTION D: FACTORS THAT INFLUENCE DIABETIC PATIENTS' DIETARY CHOICES

Statement	SD	D	A	SA
The cost of food significantly affects my ability to follow a diabetic-friendly diet.				
Lack of access to healthy food options makes it difficult to manage my diet.				
Family preferences influence the types of food I eat for diabetes management.				
I find it difficult to resist eating unhealthy foods due to social gatherings.				
My work schedule or lifestyle makes it challenging to stick to a recommended diet.				
Lack of knowledge about suitable meals for diabetes management is a barrier for me.				
My culture or traditions influence my food choices for managing diabetes.				

SECTION E: STRATEGIES TO ENHANCE THE ADOPTION OF DIET MANAGEMENT AMONG DIABETIC PATIENTS

Statement	SD	D	A	SA
Regular education about diet from healthcare providers would help me manage my diabetes better.				
Access to affordable healthy food would encourage me to adhere to a diabetes-friendly diet.				
Group counseling sessions about diet management could help me improve my dietary habits.				
Meal planning support from dietitians would help me stick to my recommended diet.				
Having family support would				

make it easier for me to follow a diabetes-friendly diet.				
Clear and accessible dietary guidelines for diabetes would improve my adherence to the plan.				
More diabetes-friendly options in restaurants or shops would help me maintain my diet.				